

REMARKS/ARGUMENTS

The specification has been amended as recommended by the Examiner.

The drawings have been amended also as recommended by the Examiner.

Claim Objections and Rejection – 35 U.S.C. § 112

Claims 1, 6, 7, 8, 15, 18 and 20 have been amended as proposed by the Examiner or where no recommendation was made, as necessary to correct the problems identified by the Examiner.

With respect to the rejection of Claim 9 under 35 U.S.C. § 112, it is believed that Claim 9, as part of the specification, would enable one skilled in the art to understand the limitations proposed. While the specification describes only the four millimeter example, Claim 9, in connection with the remainder of the specification, is believed to provide the necessary enabling information.

Claim Rejections – 35 U.S.C. § 102

Claim 1 has been amended in light of the Eggers reference to include recitation of the skin electrode which greatly simplifies construction of the present invention by allowing monopolar operation in which current passes from the needle, diffusely into the tissue at large, rather than between two point sources. The skin electrode allows a simpler introducer shaft which requires only a single layer of insulation.

Eggers teaches away from monopolar operation by describing an electrode intended for necrosis of malignant tumors (not cauterization of the needle track per the present invention) and stating at column 2, line 23, et seq. “because in the monopolar mode the current density in tissue decreases as the square of the distance from the active electrode, it is difficult to obtain necrosis of a predetermined volume of tissue.” Thus, the purpose and wording of Eggers teaches away from the design of the present invention.

Claim 16 has been amended to indicate that the cauterization is of the insertion path is more than just incidental tissue aligned with the insertion path. Insertion path, as described in the specification, is intended to include the path of the introducer shaft from the point of biopsy to a point just shy of the surface of the skin where the electrocauterization would produce discomfort.

Eggers teaches a system for localized treatment of a tumor, after a biopsy has indicated the presence of the tumor. Applicant's review of Eggers has not found any statement in Eggers that the "introducer shaft is withdrawn to cauterize tissue along the insertion path" or "the cauterizing power is disconnected prior to withdrawing the conductive surface through the skin" as suggested by the Examiner. The Applicant invites the Examiner to identify line and column number if the Examiner believes the Applicant's review has been incomplete.

Eggers teaches away from the present invention, which is intended to minimize bleeding and possible seeding by the tumor. At column 1, line 66 through column 2, line 4, Eggers indicates that heat transfer along the canula support shaft (that is along the insertion path) is undesirable. At column 6, lines 31 through 38, Eggers suggests that the cauterizing electrode might be inserted through a body cavity obviating the need for cauterization and prevention of tumor seeding. At column 14, lines 46 through 59, Eggers describes an embodiment that prevents piercing of the tumor altogether so as to prevent iatrogenic metastases that might occur when the malignant tissue is disrupted. This suggests that Eggers does not appreciate the possibility of killing such metastases by cauterizing the needle track.

The present invention provides an extremely simple method that promises improved biopsy of tumorous tissue and that is not taught or suggested by the references.

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Additional distinctions are found in the remaining claims, however, because these claims depend on claims 1 and 16, it is believed that no further arguments need be made at this time and that claims 1 through 20 are now in condition for allowance as amended. An allowance is respectfully requested.

Fees

This amendment not increased the number of claims. No fees are thus believed due in connection with this response, however, the Commissioner is authorized to charge any fees related to the Deposit Account 17-0055.

Respectfully submitted,

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